

HEALTH IS ONE

Problem Statement:

In this ongoing Covid-19 pandemic and lockdown we all are forced to stay at home. Work from home, online classes, no physical activities and all day sitting on the same couch has affected our health mentally and physically. Therefore, it's become very important for us to keep ourselves healthy and fit and also fight this disease to get back to our normal livelihood.

Considering this entire situation and health issues, our team has decided to build an application using MIT App Inventor which will guide the application users to know their Fitness category, how to improve their health with proper workout/diet, etc.

Description about application and modules of application:

So here our first slide of application has a start button, clicking on which will take user to page which has a menu bar in which there are various options for the user like as follows :

- Fitness calculator.
- Workout/Diet.
- Reminder.
- Footsteps counter.
- Meditation.
- Immune system Do's and Don'ts
- Protein Calculator.

Whereas when the user clicks on any of these buttons their respective page will be opened!

Fitness Calculator:

The feature in our application will calculate the user's fitness level using his/her height and weight, the same way as BMI (Body Mass Index) is normally being calculated.

It asks the user to enter their name, age, height and weight in the format as follows:

Enter Your Name
Enter Your Age
Enter Your Height
Enter Your Weight

Calculate

Fitness Category

After entering required details the application feature will calculate the fitness level using the formula as:

$$\text{Fitness} = \text{Weight (in kg)} / \text{Height}^2 \text{ (in cms)}$$

Once the calculation process is done, the user will get to know in which category do he/she falls into, i.e. Under weighted, Normal weighted, Over weighted or Obese.

A text to speech is being added to this feature, when the user gets to know the category he/she is falling into, an audio will be played according to the category as :

When the fitness calculator displays you fall in Under Weight category, the fitness calculator feature tells you: “You are Under Weighted, eat frequently and stay healthy!”

When the fitness calculator displays you fall in Normal Weighted category, the fitness calculator feature tells you: “You are Normal Weighted, continue with the same diet and stay fit!”

When the fitness calculator displays you fall in Over Weighted category, the fitness calculator feature tells you: “You are Over Weighted, Follow the diet provided and stay fit!”

When the fitness calculator displays you fall in Obese category, the fitness calculator feature tells you: “Change your eating habits, Eat more healthy, stay fit!”

Now according to their category the user will be asked to visit the page where he/she will be provided with a proper diet and workout plan. This feature is based on the button 2 in the above options i.e. Workout/Diet.

Workout/Diet:

The feature in our application will be suggesting a good one month workout along with diet plan to the user according to their fitness categories.

When the user gets to know the category that they fall into will then be asked to click the button 2 i.e. Workout/Diet.



Clicking on Workout/Diet button will take user to the page where all fitness categories are listed as buttons. Clicking on any of the button will take the user to the page having two buttons of Workout and Diet which again clicking will get to their respective pages.

Here the workout screen again has two options i.e. Home workout and Gym. So when the user clicks on any of the buttons according of their choice, different images will seen and steps with some information based on the particular exercise i.e. what part of the body will be developed doing that exercise will be displayed.

Similarly, in the diet section the user will be advised with some immunity building fruits, veggies, pulses, etc. which should be included in their regular diet.

Reminders:

This module in our application has two sub-modules, i.e., Water reminder and Medication reminder. This feature will remind the user to drink water or take medicines at per their times.

1)Water Reminder:

The feature in our application will be reminding the user to drink water in the chosen time span by them.

The feature will first ask the user in how many hours does him /her wants to drink water. Then it will ask how many times do the user wants to drink water in a day.



According to the information provided by user a 'Drink Water' named default alarm will be setup into the users device. As the alarm will ring the user will be asked to drink water.

In How Many Hours?
How Many Times?

Drink Water!!

Set Reminder

2)Medication Reminder:

The feature in our application will be reminding the user to take their prescribed medicine in the chosen time span by them.

The feature will first ask the user in how many hours does him /her wants to take medicine. Then it will ask how many times do the user wants to take medicine in a day.

According to the information provided by user a 'Medicine Time' named default alarm will be setup into the users device. As the alarm will ring the user will be asked to take medicine.



In How Many Hours?
How Many Times?

Medicine Time!!

Set Reminder

Footsteps Counter:

This feature in the application will be detecting the number of foot steps taken by the user. This feature can be used by the user while going for morning/evening walks.

This feature starts working as soon as the user will click on the start button.

Counter
Start
Stop
Reset



Once the user clicks on the start button and start moving, the counter will start counting the steps taken. The user can also stop the counter just by clicking the stop button.

Hershel can also resume the walk from the last count by clicking on the start button or can restart the count by clicking the reset button. Reset button will set the counter to zero value again.

Meditation:

This meditation feature in application will help the user to increase the concentrating power.

Whenever the user will require to relax, he/she can just use this feature.

Once the will click on the start button provided on meditation page, a soft tune of few seconds will start

Start
Stop



in the background. This will help to increase the concentrating power. The user can stop the tune by clicking the stop button.

Immune system Do's and Don'ts:

<u>Do's</u>	<u>Don'ts</u>
Eat a rainbow of fruits and vegetables of various colors as part of a balanced diet.	Let stress get you down.
Make sure not to consume enough calories.	Smoke or use any tobacco product.
Maintain a regular sleep schedule.	Fall for supplement claims that overstate specific health benefits.
Get at least 150 minutes of moderate exercise a week, if it's been deemed safe.	Consumption of oily and street side food.